SYLVANIA 6CX7 4CX7

MECHANICAL DATA

Bulb	T-6½
Base	E9-1, Small Button 9-Pin
Outline	6-2
Basing	9FC
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

	4CX7	6CX7	
Heater Voltage	4.2	6.3	Volts
Heater Current	600	400	Ma
Heater Warm-up Time[1]	11		Seconds
Heater-Cathode Voltage (Design Center Values)			
Heater Negative with Respect to Cathode			
Total DC and Peak[2]	200	200	Volts Max.
Heater Positive with Respect to Cathode			
DC	100	100	Volts Max.
Total DC and Peak	200	200	Volts Max.

DIRECT INTERELECTRODE CAPACITANCES (Shielded)[3]

	Section No. 1	Section No. 2	
Grid to Plate: (g to p)	1.2		μμf
Input: g to (h+k+e.s.)	2.4		μμf
Output: p to (h+k+e.s.)	1.3		μμf
Heater to Cathode: (h to k)[4]	2.4	2.2	μμf
Plate to Cathode: (p to k)	0.17	0.17	μμf Max.
No. 2 Plate to No. 1 Plate and No. 1 Grid:			
No. 2 p to (No. 1 p+No. 1 g)	0.027		μμf Max.
Plate to Plate: (No. 1 p to No. 2 p)	0.017		μμf Max.
Grounded Grid Operation:			
Input: k to (g+i.s.+h+e.s.)		4.2	μμf
Output: p to (g+i.s.+h+e.s.)		1.7	μμf

RATINGS (Design Center Values — Each Section)

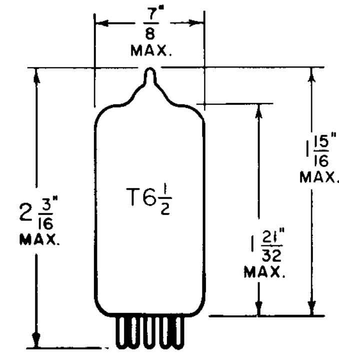
Plate Voltage[2]	250	Volts Max.
Plate Dissipation	2	Watts Max.
Cathode Current	20	Ma Max.
Grid Circuit Resistance	0.5	Megohm Max.

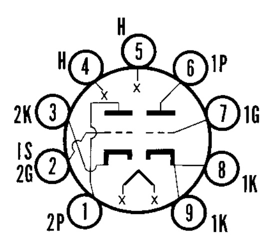
CHARACTERISTICS — Class A_1 Amplifier (Each Section)

Plate Voltage	150	Volts
Grid Voltage	0	Volts
Cathode Bias Resistor	220	Ohms
Plate Current	9.0	Ma
Transconductance	6400	μmhos
Amplification Factor	39	
Grid Voltage for I_b = 10 μa (approx.)	-10	Volts

QUICK REFERENCE DATA

The Sylvania Types 4CX7 and 6CX7 are miniature medium mu twin triodes designed for operation as cascode (vhf) amplifiers. The 4CX7 features a 600 ma heater and controlled heater warm-up time for service in television receivers employing a series heater string.





9 FC

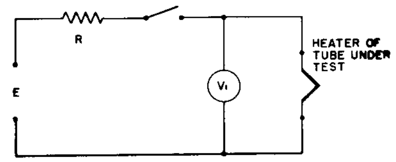
SYLVANIA ELECTRIC PRODUCTS INC.
RADIO TUBE DIVISION
EMPORIUM, PA.

Prepared and Released By The TECHNICAL PUBLICATIONS SECTION EMPORIUM, PENNSYLVANIA

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NOTES:

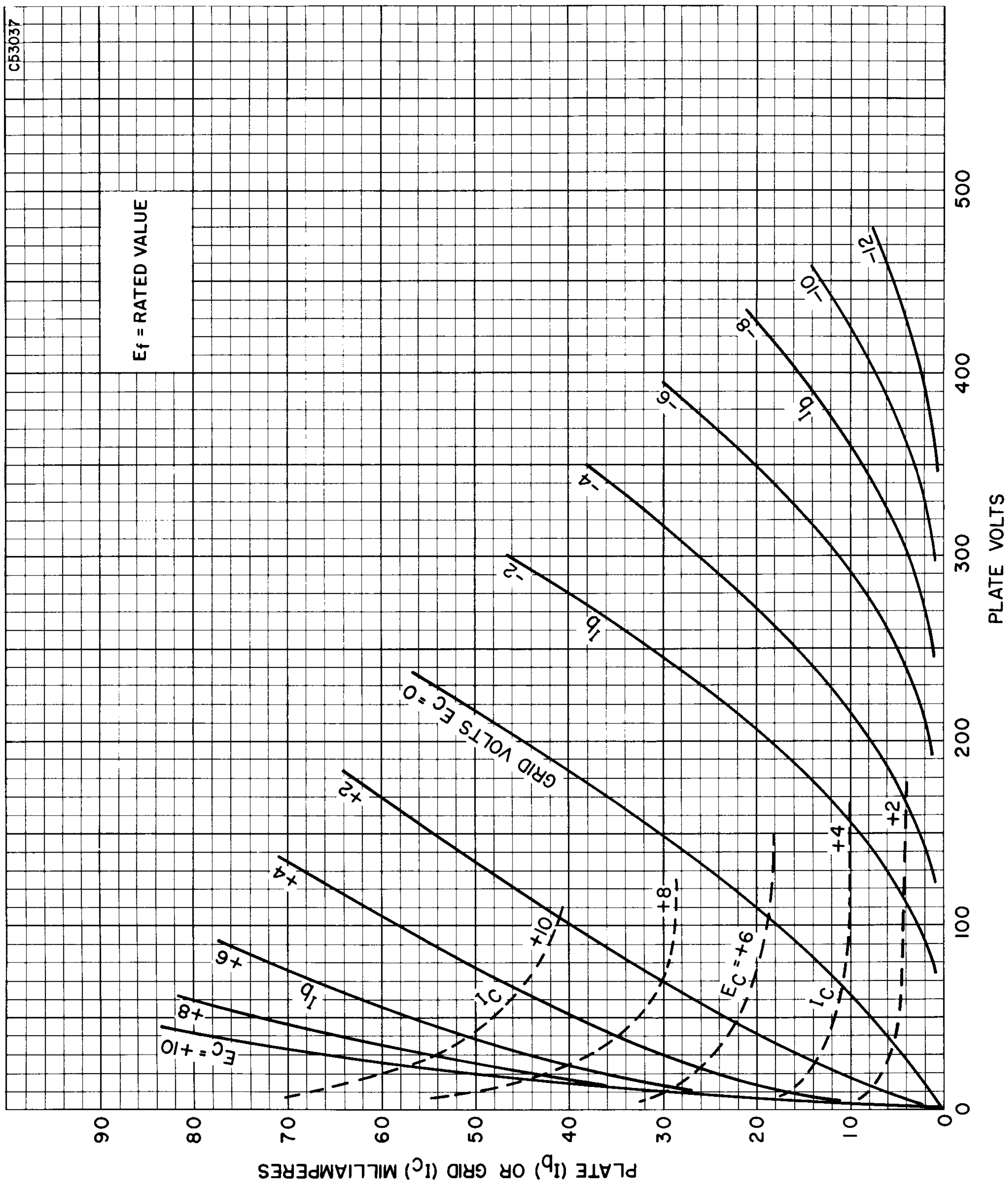
1. *Heater Warm-up Time is defined as the time required in the circuit shown below for the voltage across the heater terminals to increase from zero to the heater test voltage (V1). The conditions used in conjunction with the test circuit depend upon the rated heater voltage and current of the tube under test. For this type: E = 16.8 Volts, R = 21.0 Ohms, V1 = 3.33 Volts.*



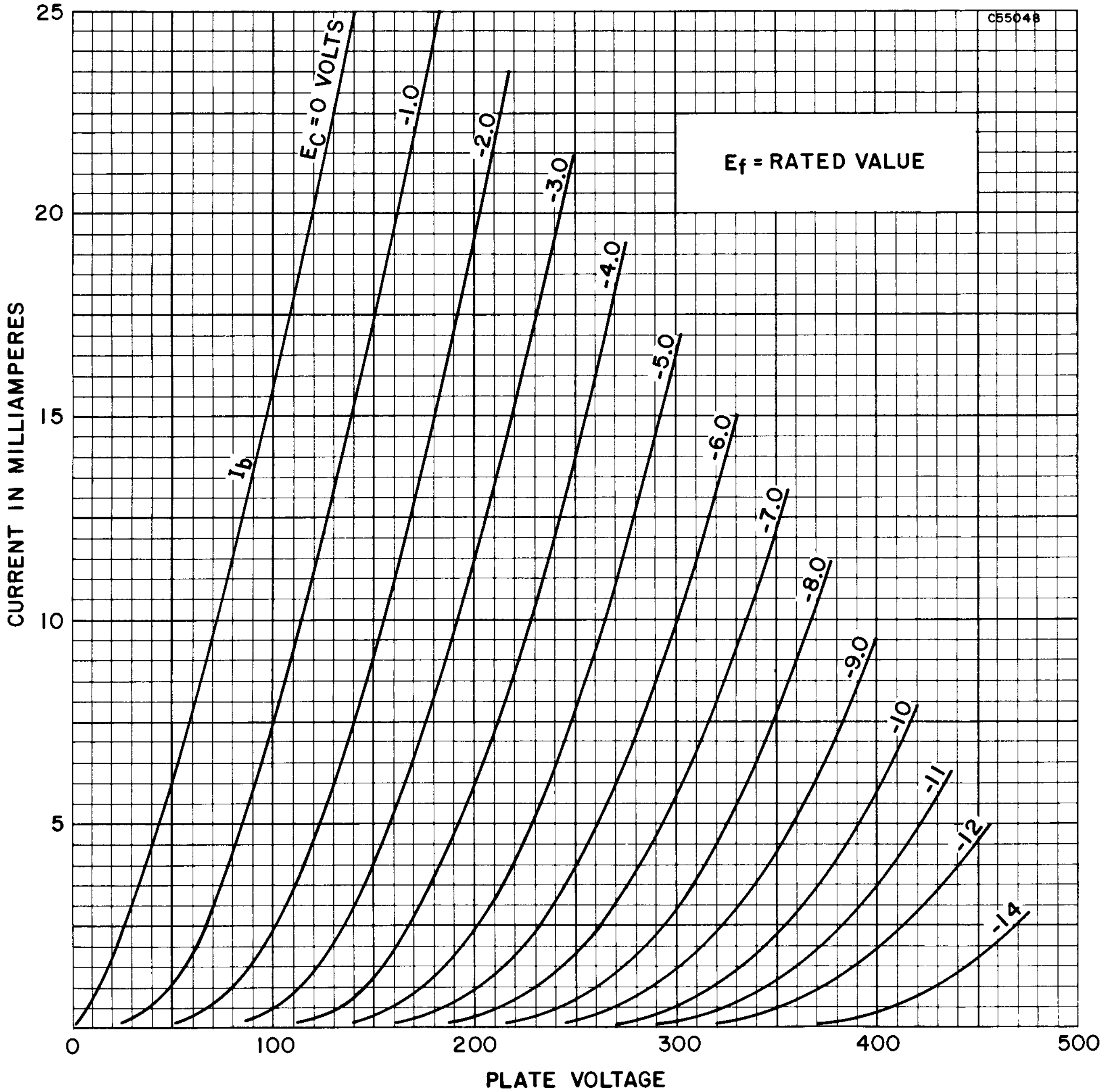
E — Applied Voltage, RMS or DC
R — Total Series Resistance
V1 — Heater Test Voltage, RMS or DC
(80% Rated Heater Voltage)

2. *Under cutoff conditions when the tube is used as a cascode amplifier, this rating may be as high as 300 volts maximum.*
3. *Shield No. 315 connected to heater unless specifie. ifferently.*
4. *Shield No. 315 connected to ground.*

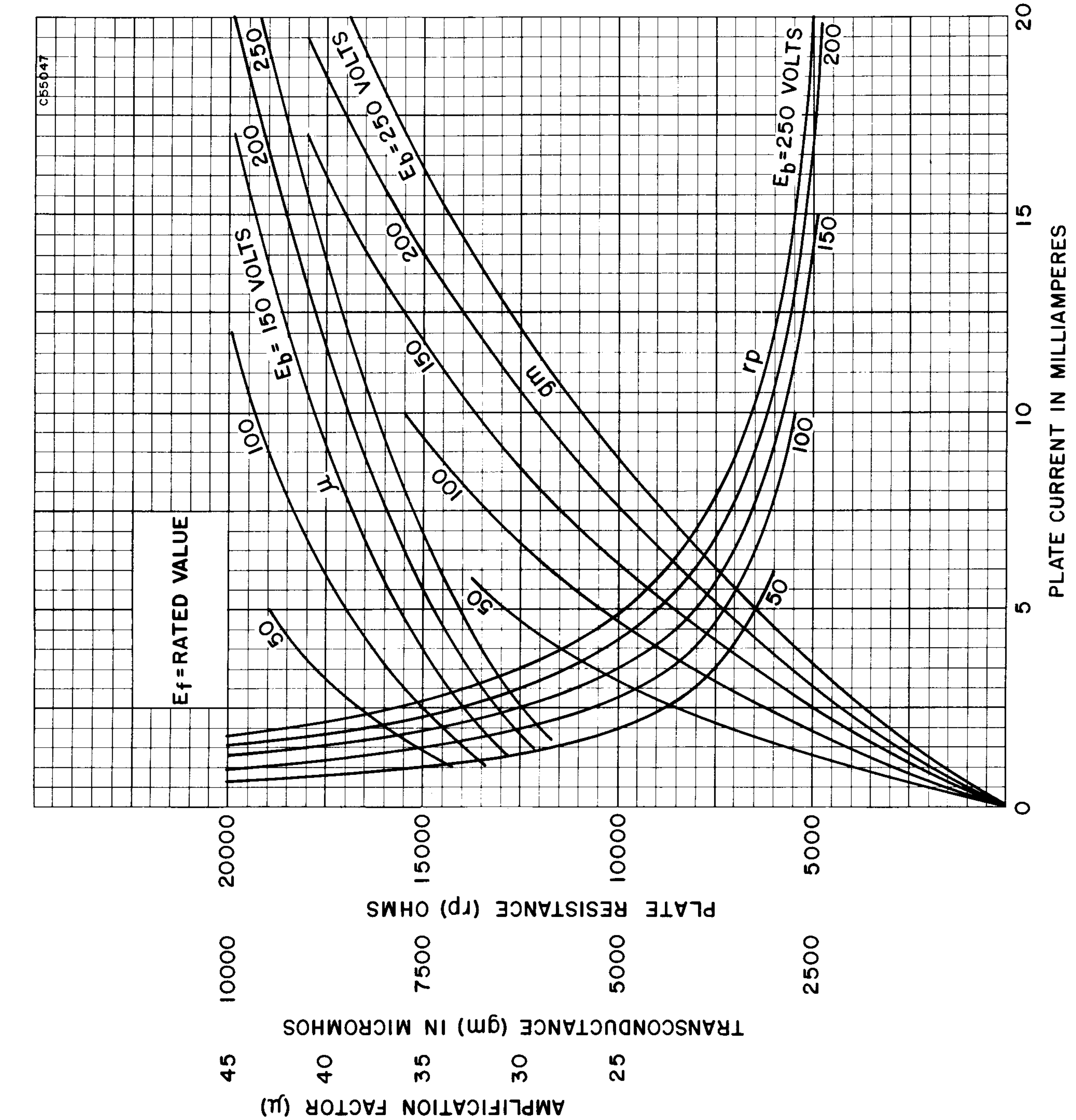
AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



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